

WHAT IS CLAIMED IS:

1 1. A gas discharge tube comprising:
2 a block, wherein at least a portion of the
3 block is maintained at a reference potential;
4 a cathode engaging the block and biased at a
5 higher potential than the reference potential; and,
6 an anode engaging the block and biased at a
7 higher potential than the cathode.

1 2. The gas discharge tube of claim 1 wherein
2 the reference potential is substantially ground.

1 3. The gas discharge tube of claim 1 further
2 comprising a biasing electrode, wherein the block
3 comprises a plasma supporting passage between the cathode
4 and the anode, wherein the biasing electrode overlies the
5 passage and extends substantially between the cathode and
6 the anode, and wherein the biasing electrode has a bias
7 to attract positive alkali ions.

1 4. The gas discharge tube of claim 3 wherein
2 the reference potential is substantially ground.

1 5. The gas discharge tube of claim 3 wherein
2 the biasing electrode is biased above the reference
3 potential.

1 6. The gas discharge tube of claim 5 wherein
2 the reference potential is substantially ground.

1 7. The gas discharge tube of claim 3 wherein
2 the anode is a first anode, wherein the gas discharge
3 tube further includes a second anode, wherein the second
4 anode engages the block and is biased at a higher
5 potential than the cathode, wherein the plasma supporting
6 passage extends between the cathode and the first and
7 second anodes, and wherein the biasing electrode overlies
8 the passage and extends substantially between the cathode
9 and the first and second anodes.

1 8. A gas discharge tube comprising:
2 a block, wherein at least a portion of the
3 block is maintained at a reference potential;
4 a cathode engaging the block and biased at a
5 lower potential than the reference potential; and,

6 an anode engaging the block and biased at a
7 higher potential than the reference potential.

1 9. The gas discharge tube of claim 8 wherein
2 the reference potential is substantially ground.

1 10. The gas discharge tube of claim 8 further
2 comprising a biasing electrode, wherein the block
3 comprises a plasma supporting passage between the cathode
4 and the anode, wherein the biasing electrode overlies the
5 passage and extends substantially between the cathode and
6 the anode, and wherein the biasing electrode has a bias
7 to attract positive alkali ions.

1 11. The gas discharge tube of claim 8 wherein
2 the reference potential is substantially ground.

1 12. The gas discharge tube of claim 8 wherein
2 the biasing electrode is biased negatively with respect
3 to the reference potential.

1 13. The gas discharge tube of claim 12 wherein
2 the reference potential is substantially ground.

1 14. The gas discharge tube of claim 10 wherein
2 the anode is a first anode, wherein the gas discharge
3 tube further includes a second anode, wherein the second
4 anode engages the block and is biased at a higher
5 potential than the cathode, wherein the plasma supporting
6 passage extends between the cathode and the first and
7 second anodes, and wherein the biasing electrode overlies
8 the passage and extends substantially between the cathode
9 and the first and second anodes.

1 15. A gas discharge tube comprising:
2 a cathode;
3 an anode;
4 a block engaged by the cathode and anode,
5 wherein the block comprises a plasma supporting passage
6 between the cathode and the anode;
7 a biasing electrode overlying the passage and
8 extending substantially between the cathode and the
9 anode, wherein the biasing electrode has a bias to
10 attract positive alkali ions.

1 16. The gas discharge tube of claim 15 wherein
2 at least a portion of the block is maintained at a
3 reference potential, wherein the cathode is biased at a
4 higher potential than the block, and wherein the anode is
5 biased at a higher potential than the cathode.

1 17. The gas discharge tube of claim 16 wherein
2 the reference potential is substantially ground.

1 18. The gas discharge tube of claim 16 wherein
2 the biasing electrode is biased positively with respect
3 to the reference potential.

1 19. The gas discharge tube of claim 18 wherein
2 the reference potential is substantially ground.

1 20. The gas discharge tube of claim 15 wherein
2 at least a portion of the block is maintained at a
3 reference potential, wherein the cathode is biased at a
4 lower potential than the block, and wherein the anode is
5 biased at a higher potential than the block.

1 21. The gas discharge tube of claim 20 wherein
2 the reference potential is substantially ground.

1 22. The gas discharge tube of claim 20 wherein
2 the biasing electrode is biased negatively with respect
3 to the reference potential.

1 23. The gas discharge tube of claim 22 wherein
2 the reference potential is substantially ground.